

WHAT IS CLAIMED IS:

1. An image processing apparatus for writing images to print media comprising:

an imaging drum for supporting said print media having a drive end wall and a vacuum end wall;

a print head for forming an image onto said print media;

a motor for rotating said imaging drum;

a blower for creating a vacuum supply to said imaging drum for holding said print media on said imaging drum; and

at least one vacuum piston for creating a second vacuum supply to said surface, wherein said vacuum piston is mounted in said drive end wall or said vacuum end wall.

2. The image processing apparatus according to claim 1, wherein said vacuum supply and said second vacuum supply are reduced for loading said print media.

3. The image processing apparatus according to claim 1, wherein said at least one vacuum piston consists of a first vacuum piston and a second vacuum piston, and wherein said first vacuum piston is mounted in said drive end wall and said second vacuum piston is mounted in said vacuum end wall.

4. The image processing apparatus according to claim 1, wherein a plurality of vacuum pistons are disposed on either said drive end wall or said vacuum end wall.

5. The image processing apparatus according to claim 1, wherein said at least one vacuum piston upon rotation of the imaging drum, forms a vacuum chamber which communicates with at least one evacuation passage thereby providing a second vacuum supply to the surface.

6. The image processing apparatus according to claim 1, wherein said vacuum supply is varied using a vacuum supply controller.

7. The image processing apparatus according to claim 1, wherein said second vacuum supply varies with the imaging drum rotational speed.

8. The image processing apparatus according to claim 6, wherein said vacuum supply controller changes the speed of said blower by pulse width modulation of a DC voltage level to said blower.

9. The image processing apparatus according to claim 1, wherein said print media is covered by a dye donor material.

10. The image processing apparatus according to claim 1, wherein said image processing apparatus is a laser thermal printer.

11. The image processing apparatus according to claim 1, wherein a dye donor material overlays said print media and said printhead writes an image to said print media by transferring from said dye donor material to said print media.

12. The image processing apparatus according to claim 1 wherein the image processing apparatus is a film writer.

13. A method for loading and unloading print media from an imaging drum having a surface, a drive end wall and a vacuum end wall, comprising the steps of:

creating a vacuum supply on said surface of said imaging drum;

rotating said imaging drum;

loading print media onto said surface;

holding said print media onto said surface by said vacuum supply which engages vacuum holes connecting to a hollowed-out interior portion of said imaging drum; and

using a vacuum piston for forming a second vacuum supply during said rotation to said vacuum holes.

14. The method as in claim 13, comprising the additional steps of:

slowing said imaging drum thereby decreasing the second vacuum supply to the surface; and

unloading said print media.

15. An imaging drum for supporting print media comprising:
an external surface and a hollowed-out interior portion;
a plurality of vacuum holes in said external surface;
a drive end wall and a vacuum end wall;
a first vacuum supply for holding print media onto said external surface through said plurality of vacuum holes; and
a second vacuum supply for holding print media onto said external surface provided by at least one vacuum piston mounted in one of said walls for creating a second vacuum supply to said plurality of vacuum holes.

16. The imaging drum according to claim 15, wherein said first vacuum supply and said second vacuum supply are reduced for loading print media onto said external surface.

17. The imaging drum according to claim 15, wherein said at least one vacuum piston consists of a first vacuum piston and a second vacuum piston, mounted in said drive end wall and said second vacuum piston is mounted in said vacuum end wall.

18. The imaging drum according to claim 15, where a plurality of vacuum pistons are mounted on either said drive end wall or said vacuum end wall.

19. The imaging drum according to claim 15, wherein said at least one vacuum piston upon rotation of the imaging drum forms a vacuum chamber which communicates with at least one evacuation passage which provides the second vacuum supply to the external surface.

20. The imaging drum according to claim 15, wherein said first vacuum supply is varied using a vacuum supply controller.

21. The imaging drum according to claim 15, wherein said second vacuum supply varies with the imaging drum rotational speed.